

REMARKS

This application has been carefully reviewed in light of the Office Action dated July 21, 2004. Claims 21, 23 to 27, 51, 53 to 57 and 64 are in the application, of which Claims 21, 51 and 64 are independent. Reconsideration and further examination are respectfully requested.

Claims 21, 23 to 26, 51, 53 to 56 and 64 were rejected under 35 U.S.C. § 103(a) over U.S. Patent 5,987,506 (Carter), and Claims 27 and 57 were rejected under 35 U.S.C. § 103(a) over Carter in view of U.S. Patent No. 5,579,516 (Maren). Reconsideration and withdrawal of these rejections are respectfully requested.

The present invention is directed to a data file directory system wherein meta-data about the data stored in the data files is registered by directory with respect to existing data managed by a directory without affecting any existing applications. In one aspect of the invention, data files in directories may be grouped by certain affiliations and characteristics using the registered meta-data.

Turning to specific claim language, amended independent Claim 21 is directed to a data processing method including the steps of reading multiple kinds of meta-data from data files belonging to a directory, each of the files having both data and meta-data indicating characteristics of the data, extracting a common meta-data item whose content is included in all of the data files from the multiple kinds of meta-data read in said reading step, generating directory meta-data for the directory by using the common meta-data item extracted in the extracting step, and attaching the directory meta-data generated in the generating step to the directory. In this way, a common meta-data item whose content is included in all of the data files and whose content indicates characteristics of the

data can be used to generate directory meta-data for a group of data files sharing a common characteristic other than directory address or location.

In contrast, Carter discloses a file management system employing "Inodes" information about the location of a file. Specifically, "(a) file of the file system 60 comprises streams of data and the file system metadata to describe the file. Files are described in the file system 60 by objects called Inodes. The Inode is a data structure that stores the file metadata. It (the Inode) represents the file in the file system 60." (Carter, column 11, lines 34 to 38.) In previous Office Actions, Inodes have been characterized as including data common to multiple data files. For example, Inodes have been characterized as including address data that is common to multiple files, such as an address for a directory including the multiple files. As such, Carter's Inodes include information about files with respect to the files' inclusion in a file system.

However, Carter fails to disclose Inodes as including meta-data indicating characteristics of the data included in a data file. In each discussion of Inode usage in Carter, Inodes are describe as only containing file system information about a file and not meta-data indicating characteristics of the data inside of the file. In fact, Carter is entirely silent on the characteristics of the data that may be included in a file. This is logical, as a file system should be able to handle files of all types having all manner of characteristics. Therefore, the characteristics of the data stored in a file are irrelevant to manipulation of the file and may be hidden from the file system processes. As such, inclusion of meta-data indicating characteristics of the data in a file into Carter's Inodes would be antithetical to the teachings of Carter. This is because Carter teaches manipulations on files as abstracted

Inodes. Inclusion of meta-data indicating characteristics of the data in the file would weaken the data hiding features, and thus the resulting abstraction, provided by the Inodes.

Furthermore, Carter fails to disclose generating directory meta-data for a data file using a common meta-data item indicating characteristics of the data in data files. At best, Carter discloses using Inodes in a reconciliation process wherein a master cloud parses a reconciliation log including Inodes and then performs a series of interacting operations between a local cloud and a remote cloud so as to reconcile changes in files stored both on the local cloud and the remote cloud. As Inodes only contain information about a file with respect to the file's inclusion in the clouds, the reconciliation process can only produce more file information with respect to the file's inclusion in a cloud. Such a process cannot generate directory meta-data for a data file using meta-data indicating characteristics of the data in the data file because the process simply does not have the required meta-data about the data in the file.

Moreover, whatever significance might be attached to Carter's Inode information, Carter does not describe any process for searching meta-data of data files for a common meta-data item whose content is included in all of the data files. As best understood, for example, Carter's reconciliation process proceeds serially through the reconciliation log, one entry at a time. There is no searching of the reconciliation log, and certainly there is no searching of the reconciliation log for a common meta-data item whose content is included in all of the data files.

Amended independent Claims 51 and 64 are directed to a device and a memory medium storing a control program to be executed by a computer, respectively,

incorporating the method of Claim 21. Applicants submit that the discussion from above in regard to Claim 21 applies equally to Claims 51 and 64.

The remaining claims are each dependent from an amended independent claim as discussed above and are, therefore, believed allowable for the same reasons. In addition, because each dependent claim is also deemed to define an additional aspect of the invention, individual consideration of each dependent claim on its own merits is respectfully requested.

It is therefore respectfully submitted that all claims are fully in condition for allowance, and such action is courteously solicited.

Applicants' undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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